Controller for LED Colorline

ORDERCODE 43120

SHOWELECTRONICS FOR PROFESSIONALS

Congratulations!

You have bought a great, innovative product from Showtec.
The Showtec ColorLine Controller brings excitement to any venue. Whether you want simple plug-&-play action or a sophisticated DMX show, this product provides the effect you need.

You can rely on Showtec, for more excellent lighting products.
We design and manufacture professional light equipment for the entertainment industry.
New products are being launched regularly. We work hard to keep you, our customer, satisfied.
For more information: iwant@showtec.info

You can get some of the best quality, best priced products on the market from Showtec.
So next time, turn to Showtec for more great lighting equipment.
Always get the best -- with Showtec !

Thank you!

Showtec

Showtec ColorLine Controller™ Product Guide

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WARNING

CAUTION!
Keep this device away from rain and moisture!
Unplug mains lead before opening the housing!

FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY BEFORE YOUR INITIAL START-UP!

SAFETY INSTRUCTIONS

Every person involved with the installation, operation and maintenance of this device has to:

- be qualified
- follow the instructions of this manual

CAUTION! Be careful with your operations.
With a dangerous voltage you can suffer
a dangerous electric shock when touching the wires!

Before your initial start-up, please make sure that there is no damage caused by transportation. Should there be any, consult your dealer and do not use the device.

To maintain perfect condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this manual.

Please consider that damages caused by manual modifications to the device are not subject to warranty.

This device contains no user-serviceable parts. Refer servicing to qualified technicians only.

IMPORTANT:

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorized modification to the device.

- Never let the power-cord come into contact with other cables! Handle the power-cord and all connections with the mains with particular caution!
- Never remove warning or informative labels from the unit.
- Never look directly into the light source.
- Never leave any cables lying around.
- Do not open the device and do not modify the device.
- Do not connect this device to a dimmerpack.
- Do not switch the device on and off in short intervals, as this would reduce the system's life.
- Only use device indoor, avoid contact with water or other liquids.
- Avoid flames and do not put close to flammable liquids or gases.
- Always disconnect power from the mains, when device is not used or before cleaning! Only handle the power-cord by the plug. Never pull out the plug by tugging the power-cord.
- Make sure that the device is not exposed to extreme heat, moisture or dust.
- Make sure that the power-cord is never crimped or damaged. Check the device and the power-cord from time to time.
- If device is dropped or struck, disconnect mains power supply immediately. Have a qualified engineer inspect for safety before operating.
- If the device has been exposed to drastic temperature fluctuation (e.g. after transportation), do not switch it on immediately. The arising condensation water might damage your device. Leave the device switched off until it has reached room temperature.
- If your Showtec device fails to work properly, discontinue use immediately. Pack the unit securely (preferably in the original packing material), and return it to your Showtec dealer for service.

- For replacement use fuses of same type and rating only.
- Repairs, servicing and electric connection must be carried out by a qualified technician.
- WARRANTY: Till one year after date of purchase.

CAUTION ! EYEDAMAGES !.
Avoid looking directly into the light source.
(meant especially for epileptics) !

OPERATING DETERMINATIONS

If this device is operated in any other way, than the one described in this manual, the product may suffer damages and the warranty becomes void.

Any other operation may lead to dangers like short-circuit, burns, electric shock, lamp explosion, crash etc.
You endanger your own safety and the safety of others!

Rigging

Please follow the European and national guidelines concerning rigging, trussing and all other safety issues.

Do not attempt the installation yourself !
Always let the installation be carried out by an authorized dealer !

Procedure:

- If a ColorLine is lowered from the ceiling or high joists, professional trussing systems have to be used.
- Mount the ColorLine to the trussing system.
- The ColorLine must never be fixed swinging freely in the room.
- The installation must always be secured with a safety attachment, e.g. an appropriate safety net or safety-cable.
- When rigging, derigging or servicing the ColorLine, always make sure, that the area below the installation place is blocked and staying in the area is forbidden.

Connection with the mains

Connect the device to the mains with the power-plug.
Always pay attention, that the right color cable is connected to the right place.

International	EU Cable	UK Cable	US Cable	Pin
L	BROWN	RED	YELLOW/COPPER	FASE
N	BLUE	BLACK	SILVER	NUL
⏚	YELLOW/GREEN	GREEN	GREEN	EARTH

Make sure that the device is always connected properly to the earth!

Improper installation can cause serious damage to people and property !

Description of the device

Features

The ColorLine Controller is designed for the more demanding user:

- Standalone
- DMX-512
- Stand-alone Operation: Master/Slave Mode
  Manual Color mixing
  Manual chases with adjustable speed and fade
  9 chases
- Standard 4 channels and full function 7 channel DMX control
- Easy to use in each deco application
- Compact design housing
- Included in the box: 1x Controller for LED ColorLine
  4X 5m connection cable
  1x 3-pin input terminal connector
  1x 3-pin output terminal connector
  1x Power input terminal connector

Overview

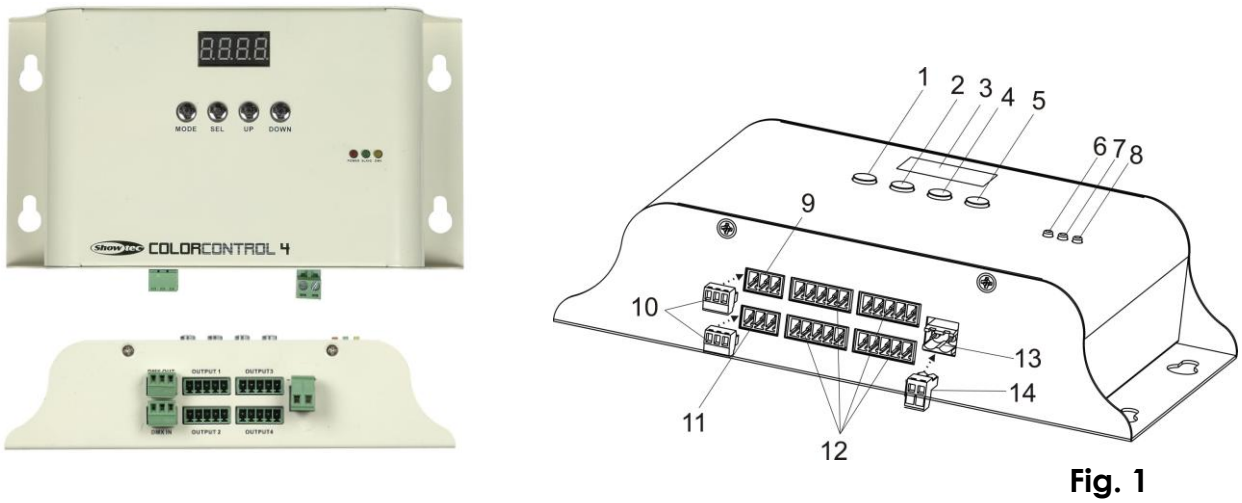
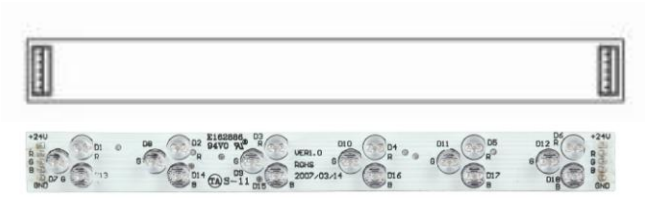


Fig. 1

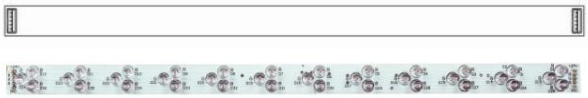
1) Mode
2) Select
3) Digital Display
4) Up
5) Down
6) Power LED
7) Master LED
8) DMX LED
9) DMX Output
10) DMX Terminal Connector
11) DMX Input
12) 5-pin Output Terminal
13) Power Input Terminal
14) 2-pin Power Input Connector

Colorline Series

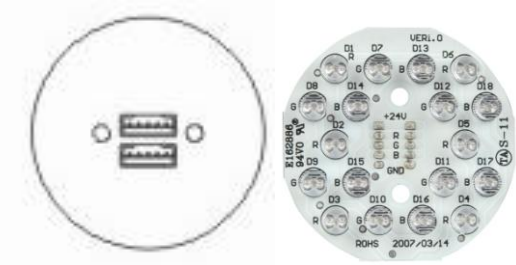


LED ColorLine 150 (**43100**)
18 LEDs (6 Red, 6 Green, 6 Blue)

LED ColorBoard 300 (**43102**)
147 LEDs (49 Red, 49 Green, 49 Blue)



LED ColorLine 300 (**43101**)
36 LEDs (12 Red, 12 Green, 12 Blue)



LED ColorDot 50 (**43103**)
18 LEDs (6 Red, 6 Green, 6 Blue)

Accessories

Mountingstrip for ColorLine (**43130**)

Connection Cable for ColorLine

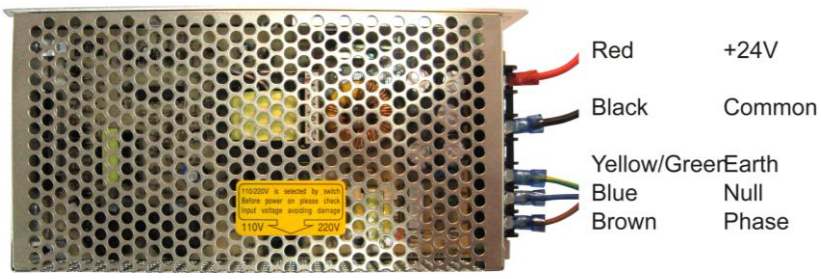
43131 5 cm
43132 30 cm
43133 1m

LUX Values

ColorLine150	30.8 LUX @ 0.5m
ColorLine 300	57 LUX @ 0.5m
ColorDot 50	31 LUX @ 0.5m
ColorBoard 300	243 LUX @ 0.5m

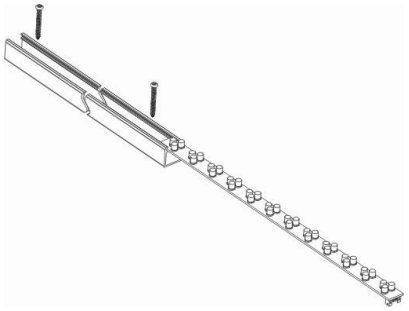
NOTE: The External Power Supply is essential when using the Colorline Controller.
* Please make sure to check the maximum amount of connected Colorline strips.
  Damages caused by non-observance are not subject to warranty.
* The Colorline controller can handle max 4320 LEDs. Pay attention to this when connecting multiple Colorline strips to one controller. (also see page 7)

External Power Supply
LED Powersupply 24V 50W (**60110**)
LED Powersupply 24V 100W (**60111**)
LED Powersupply 24V 150W (**60112**)
LED Powersupply 24V 200W (**60113**)
LED Powersupply 24V 350W (**60114**)

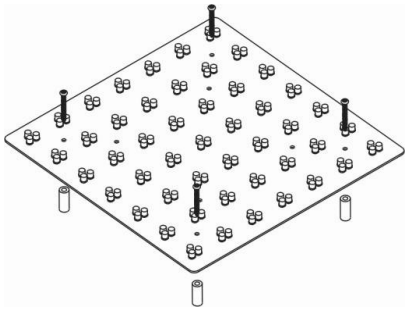


Mounting the ColorLine Series

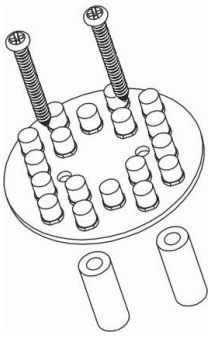
ColorLine 150/300 (43100/43101)
Optional mounting bracket (**43130**) is required for installation. Place the mounting bracket on the desired surface and drill some holes. Use screws to fix the bracket to the surface and simply slide the ColorLine 150/300 into the mounting bracket.



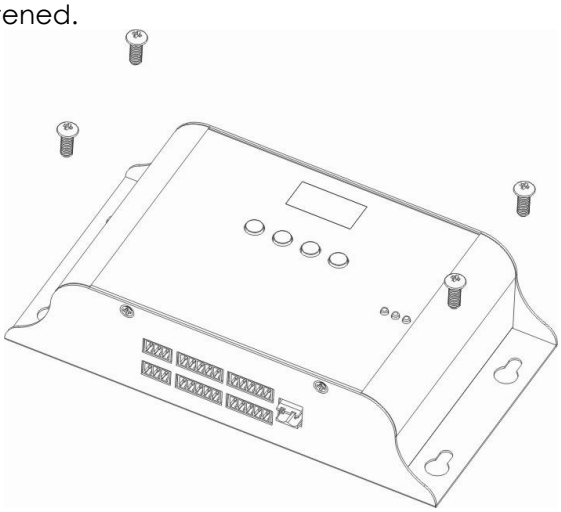
ColorBoard 300 (43102)
Determine the desired mounting surface, place the included plastic spacers under the ColorBoard 300. Then use 4 screws to fasten the ColorBoard 300 onto the surface through spacer.



ColorDot 50 (43103)
Determine the desired mounting surface, place the included plastic spacers under the ColorDot 50. Then use 2 screws to mount the ColorDot 50 onto the surface through spacer.

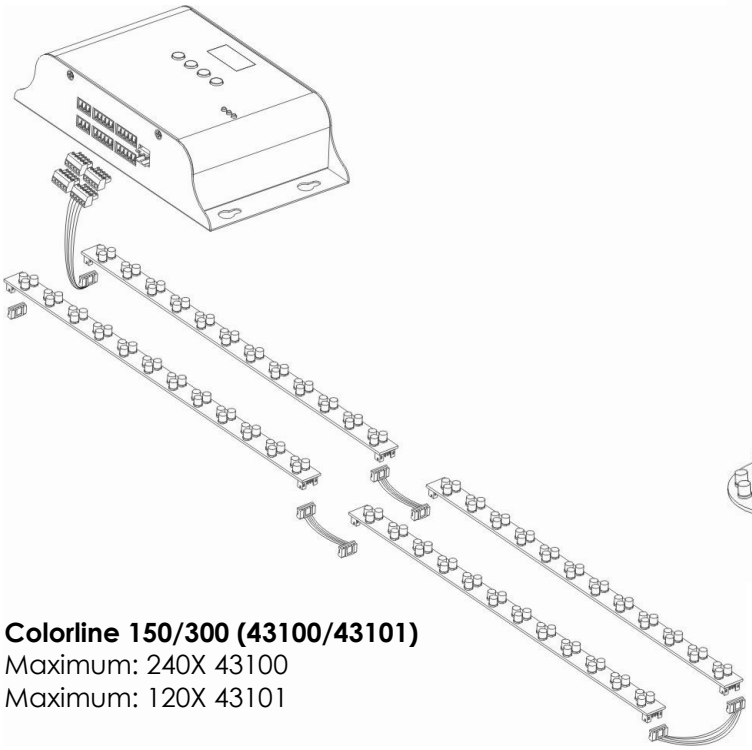


Controller for LED ColorLine (43120)
Screw the 4 included screws through the installation holes located on each corner of the ColorLine. All screws must be securely fastened.

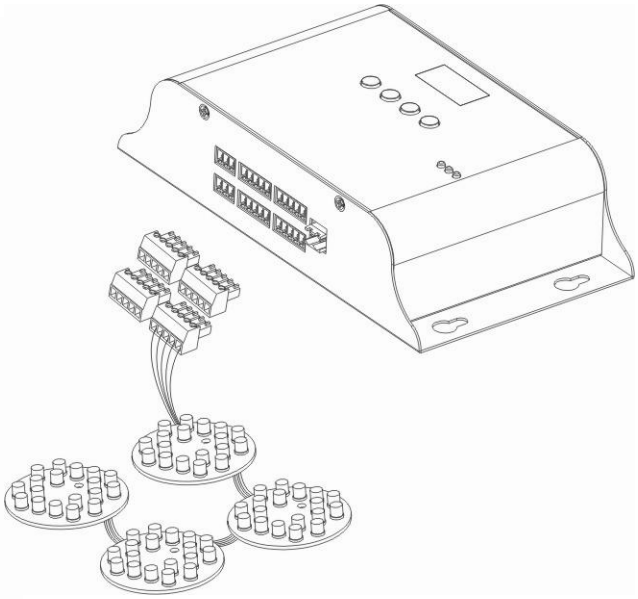


Connection of the Colorline Series

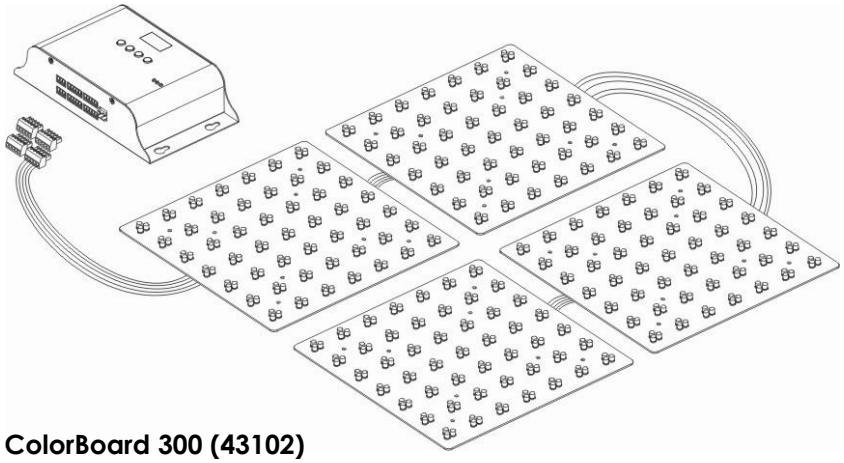
Warning !!! **Each controller can drive a maximum of 4,320 LEDs.**
Exceeding this number will damage the main controller board and LED board, then the warranty will become void.



Colorline 150/300 (43100/43101)
Maximum: 240X 43100
Maximum: 120X 43101



ColorDot 50 (43103)
Maximum: 240X 43103



ColorBoard 300 (43102)
Maximum: 29X 43102

Installation

Remove all packing materials from the LED ColorLine Controller. Check that all foam and plastic padding is removed. Connect all cables.

Warning: The ColorLine Controller may only be connected to DC 24V

Note: It's necessary to insert a XLR termination plug (with 120 Ohm) in the last fixture in order to ensure proper transmission on the DMX data link.
Do not supply power before the whole system is set up and connected properly.
Always disconnect from electric mains power supply before cleaning or servicing.
Damages caused by non-observance are not subject to warranty.

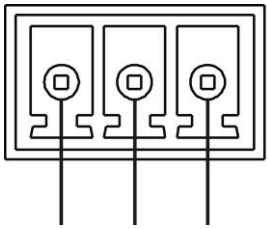
Set Up and Operation

Follow the directions below, as they pertain to your preferred operation mode.
Before plugging the unit in, always make sure that the power supply matches the product specification voltage. Do not attempt to operate a 120V specification product on 230V power, or vice versa.

You can operate this device as:

1. DMX-controllable
2. DMX-serial Data Link
3. Master/Slave Data Link

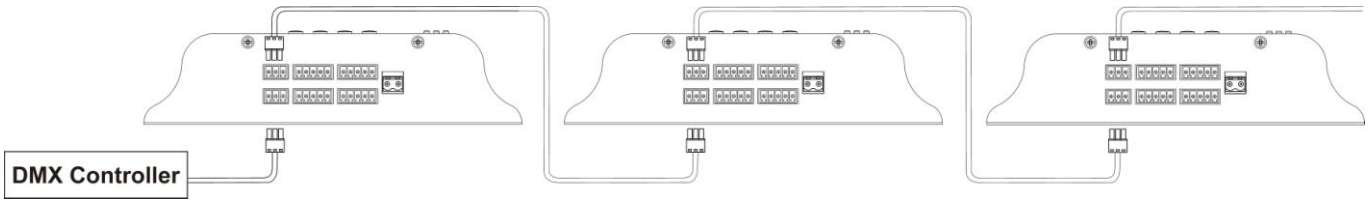
DMX-controllable



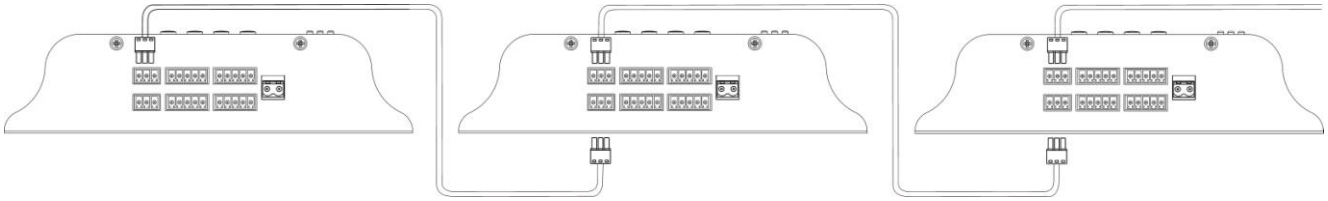
1. Data +
2. Data -
3. GND

Link the units as shown below, Connect a DMX signal cable from the first unit's DMX "out" socket to the second unit's "in" socket. Repeat this process to link the second, third, and fourth units.
Supply electric power: Plug electric mains power cords into each unit's IEC socket, then plug the other end of the mains power cord into proper electric power supply sockets, starting with the first unit.
Do not supply power before the whole system is set up and connected properly.

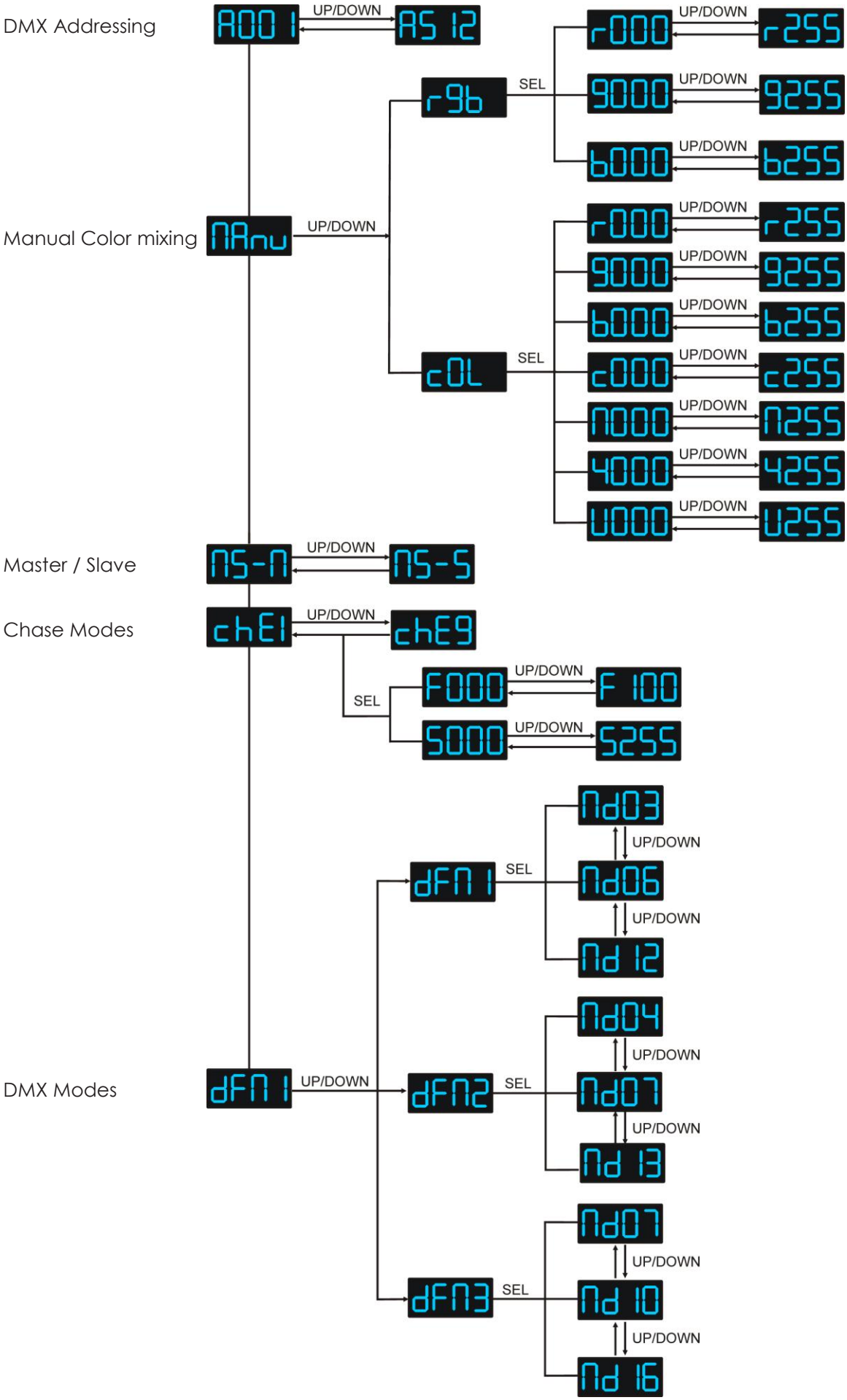
DMX-serial Data Link



Master/Slave Data Link



Function Overview



DMX Operation

Setting the DMX Control Channel

The controller has 4 terminals to connect with the color module, each output can be controlled by channel mode 1, 2, 3 you can get a total of 9 DMX channels mode.

1. Press the MODE button to scroll through the menu, until the display shows dFN1.
2. Use the UP/DOWN buttons to select the DMX address from dFN1, dFN2 or dFN3
3. If dFN1 is selected, use the SEL button to find Nd03, then use the UP/DOWN buttons to select Nd03, Nd06 or Nd12
4. If dFN2 is selected, use the SEL button to find Nd04, then use the UP/DOWN buttons to select Nd04, Nd07 or Nd13
4. If dFN3 is selected, use the SEL button to find Nd07, then use the UP/DOWN buttons to select Nd07, Nd10 or Nd16

Set unit as Master or Slave

Use mode button to find master/slave menu nS-n . Use up/down button to select nS-n (master) or nS-S (slave)

Mode	NO. of Output	Basic/Standard/Full Function
Nd03	4	Basic
Nd06	2	Basic
Nd12	1	Basic
Nd04	4	Standard
Nd07	2	Standard
Nd13	1	Standard
Nd07	4	Full
Nd10	2	Full
Nd16	1	Full

Nd03 3 channel mode
DMX channel function: CH1 Red, CH2 Green, CH3 Blue.

Nd06 6 channel mode, control two set of two outputs.
DMX channel function: CH1 Red, CH2 Green, CH3 Blue.
CH4 Red, CH5 Green, CH6 Blue.

Nd12 12 channel mode, control four outputs individually.
DMX channel function: CH1 Red, CH2 Green, CH3 Blue.
CH4 Red, CH5 Green, CH6 Blue,
CH7 Red, CH8 Green, CH9 Blue
CH10 Red, CH11 Green, CH12 Blue.

nd04 4 channel mode.
DMX channel function: CH1 Red, CH2 Green, CH3 Blue.
CH4 Dimmer/Strobe.

nd07 7 channel mode, control two set of two outputs.
DMX channel function: CH1 Red, CH2 Green, CH3 Blue.
CH4 Red, CH5 Green, CH6 Blue.
CH7 Dimmer/Strobe.

nd 13 13 channel mode, control four outputs individually.
DMX channel function: CH1 Red, CH2 Green, CH3 Blue.
CH4 Red, CH5 Green, CH6 Blue,
CH7 Red, CH8 Green, CH9 Blue
CH10 Red, CH11 Green, CH12 Blue.
CH13 Dimmer/Strobe.

nd07 7 channel mode.
DMX channel function: CH1 Red, CH2 Green, CH3 Blue.
CH4 Dimmer/Strobe, CH5 Chase, CH6 Speed, CH7 Fade.

nd 10 10 channel mode, control two set of two outputs.
DMX channel function: CH1 Red, CH2 Green, CH3 Blue.
CH4 Red, CH5 Green, CH6 Blue
CH7 Dimmer/Strobe, CH8 Chase, CH9 Speed, CH10 Fade.

nd 16 16 channel mode, control four outputs individually.
DMX channel function: CH1 Red, CH2 Green, CH3 Blue.
CH4 Red, CH5 Green, CH6 Blue,
CH7 Red, CH8 Green, CH9 Blue
CH10 Red, CH11 Green, CH12 Blue.
CH13 Dimmer/Strobe, CH14 Chase, CH15 Speed, CH16 Fade.

DMX Set Up

1. Press the MODE button to scroll through the menu, until the display shows A001.
2. Use the UP/DOWN buttons to select the DMX address from A001 - A512.

DMX Basic (3 Channels)

Channel 1 – Red

0-255	Gradual adjustment Red from 0 – 100%

Channel 2 – Green

0-255	Gradual adjustment Green from 0 – 100%

Channel 3 – Blue

0-255	Gradual adjustment Blue from 0 – 100%

DMX Standard (4 Channels)

Channel 1 – Red

0-255	Gradual adjustment Red from 0 – 100%

Channel 2 – Green

0-255	Gradual adjustment Green from 0 – 100%

Channel 3 – Blue

0-255	Gradual adjustment Blue from 0 – 100%

Channel 4 – Dimmer / Strobe

0-159	Dimmer; Gradual adjustment Blue from 0 – 100%
160-255	Strobe effect, from slow to fast (0-10 flashes/sec.)

DMX Full Function (7 Channels)

Channel 1 – Red

0-255	Gradual adjustment Red from 0 – 100%

Channel 2 – Green

0-255	Gradual adjustment Green from 0 – 100%

Channel 3 – Blue

0-255	Gradual adjustment Blue from 0 – 100%

Channel 4 – Dimmer / Strobe

0-159	Dimmer; Gradual adjustment Blue from 0 – 100%
160-255	Strobe effect, from slow to fast (0-10 flashes/sec.)

Channel 5 – Chase

0-30	Chase 1
31-60	Chase 2
61-90	Chase 3
91-120	Chase 4
121-150	Chase 5
151-180	Chase 6
181-210	Chase 7
211-240	Chase 8
241-255	Chase 9

Channel 6 – Speed

0-255	Gradual adjustment from 0 – 100%

Channel 7 – Fade Time

0-255	Gradual Fade adjustment from 0 – 100%

Stand-alone control

Manual Color Mixing
Make color adjustment manually using the MODE button. You can control red, green, blue, cyan, magenta, yellow, white.

1. Press the MODE button to scroll through the menu, until the display shows
2. Use the UP/DOWN buttons to select or
3. If is selected, use the SEL button to scroll through the submenu, then use the UP/DOWN buttons to make adjustments.

Gradual adjustment Red from 0 – 100%
Gradual adjustment Green from 0 – 100%
Gradual adjustment Blue from 0 – 100%

If is selected, use the SEL button to scroll through the submenu, then use the UP/DOWN buttons to make adjustments

Preset gradual adjustment Red from 0 – 100%
Preset gradual adjustment Green from 0 – 100%
Preset gradual adjustment Blue from 0 – 100%
Preset gradual adjustment Green from 0 – 100%
Preset gradual adjustment Blue from 0 – 100%
Preset gradual adjustment Green from 0 – 100%
Preset gradual adjustment Blue from 0 – 100%

Auto Chase Mode
1. Press the MODE button to scroll through the menu, until the display shows .
2. Use the UP/DOWN buttons to select the Chase from to .
3. Use the SEL button to select or in the submenu
4. Use the UP/DOWN buttons to set Fade and Speed values

Select Chase from 1 – 9
Gradual adjustment Chase Fade Time from 0 – 100%
Gradual adjustment Chase Fade Time from 0 – 255

Maintenance

The Showtec ColorLine Controller requires almost no maintenance. However, you should keep the unit clean. Disconnect the mains power supply, and then wipe the cover with a damp cloth. Do not immerse in liquid. Do not use alcohol or solvents.
Keep connections clean. Disconnect electric power, and then wipe the DMX and audio connections with a damp cloth. Make sure connections are thoroughly dry before linking equipment or supplying electric power.

Troubleshooting

Showtec LED Colorline Controller

This troubleshooting guide is meant to help solve simple problems. If a problem occurs, carry out the steps below in sequence until a solution is found. Once the unit operates properly, do not carry out following steps.

1. If the device does not operate properly, unplug the device.
2. Check power from the wall, all cables, the fuse, etc.
3. If all of the above appears to be O.K., plug the unit in again.
4. If nothing happens after 30 seconds, unplug the device.
5. Return the device to your Showtec dealer.

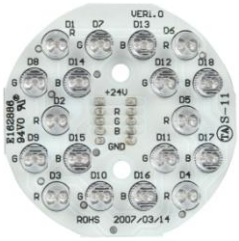
Product Specification

Model: Showtec ColorLine Controller (**43120**)
Voltage: DC 24V input
Power: 206.40W
2 PIN Connector for DC power input
5 PIN Connector for LED output
3 PIN Connector for DMX input and output.
Control: DMX, Manual RGB, Master/Slave, Auto Chase.
Dimensions: 200 x 110 x 50 mm (LxWxH)
Weight: 666 g

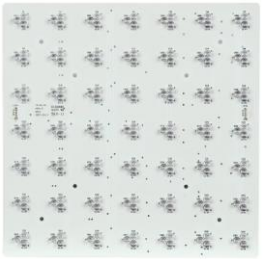
Model: Showtech COLORLINE 150 (**43100**)
Voltage: DC 24V
Power: 0.85W
18 LEDs (6 Red, 6 Green, 6 Blue)
5 PIN connector for input and output connection
Dimensions: 145 x 15 x 16 mm (LxWxH)
Weight: 11 g

Model: Showtech COLORLINE 300 (**43101**)
Voltage: DC 24V
Power: 1.75W
36 LEDs (12 Red, 12 Green, 12 Blue)
5 PIN connector for input and output connection
Dimensions: 290 x 15 x 16 mm (LxWxH)
Weight: 23 g

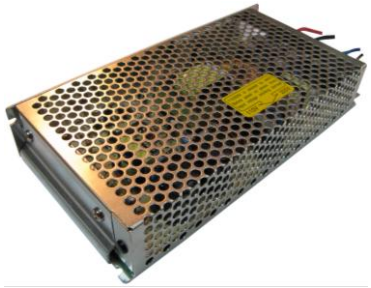
Model: Showtech COLORDOT 50 (**43103**)
Voltage: DC 24V
Power: 0.85W
18 LEDs (6 Red, 6 Green, 6 Blue)
5 PIN connector for input and output connection
Dimensions: ø50 x 16 mm
Weight: 11 g



Model: Showtech COLORBOARD 300 (**43102**)
Voltage: DC 24V
Power: 6.91W
147 LEDs (49 Red, 49 Green, 49 Blue)
5 PIN connector for input and output connection
Dimensions: 230 x 230 x 16 mm (LxWxH)
Weight: 213 g



External Power Supply
LED Powersupply 24V 50W (**60110**)
LED Powersupply 24V 100W (**60111**)
LED Powersupply 24V 150W (**60112**)
LED Powersupply 24V 200W (**60113**)
LED Powersupply 24V 350W (**60114**)
Dimensions: 200 x 110 x 50 mm (LxWxH)
Weight: 734 g



Design and product specifications are subject to change without prior notice.

CE

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